

CLAIMS

5 **What Is Claimed Is:**

1. A data transmission system using N-dimensional information, wherein the N-dimensional information comprises:

basic information unit File_f information comprised of at least two layer
10 information combinations among a top layer information T_f information, a middle layer information M_f.n information related to the T_f information, and a bottom layer information B_f information related to the T_f information or the M_f.n information;

a data structure of the N-dimensional information comprised of the File_f information; and

15 a storage for storing the data structure of the N-dimensional information.

2. The data transmission system according to claim 1, wherein the top layer information T_f information is composed of information that is created by a
20 keyboard/keypad or biometric terminals comprised in a Client system and Server System, respectively, and accessed through code information generated by the keyboard/keypad input or through biometric information of the client acquired from the biometric terminals;

wherein the middle layer information M_f.n information is composed of n-
25 dimensionally related middle layer information from M_f.1 information to M_f.n

information, the $M_{f.1}$ information being lower layer information related to the top layer information T_f information and the $M_{f.n}$ information being upper layer information of the B_f information and $M_{f.n-1}$ information being upper layer information of the $M_{f.n}$ information, and used as a variable for an encryption
5 processing based on the N-dimensional information; and

wherein the B_f information is composed of authentication information the client registers to the DB of the Server System.

10 3. A data transmitting methods using N-dimensional information, wherein an authentication processing of Server System comprises the steps of:

randomly extracting N-dimensional T_f information to create combined information and transmitting the combined information to Client System;

searching lower layer information $M_{f.n}$ combined information related to the
15 transmitted T_f combined information;

applying to the authentication information registered by a client an encryption processing using the searched $M_{f.n}$ combined information as a variable to create encrypted information; and

if the encrypted information corresponds with the authentication information
20 from the client , authenticating the client.

4. A data transmitting methods using N-dimensional information, wherein an authentication processing of Client System comprises the steps of:

25 receiving N-dimensional T_f combined information from Server System;

searching a portable storage or storage device for lower layer information
M_f.n combined information related to the received T_f combined information; and

applying to authentication information a client needs to transmit an encryption
processing using the searched M_f.n combined information as a variable to create the
5 encrypted information, and transmitting the encrypted information being created to
Server System.

5. A data transmitting methods using N-dimensional information, wherein a
10 method for transmitting/receiving encrypted information between Client Systems that
share N-dimensional T_f information and M_f.n information comprises the steps of:

randomly extracting N-dimensional T_f information to create combined
information, and transmitting the combined information to another Client System for
sharing;

15 searching lower layer information M_f.n combined information related to the
T_f combined information being shared;

applying to information a client needs to transmit an encryption processing
using the searched M_f.n combined information as a variable to create encrypted
information, and transmitting the encrypted information to the client; and

20 applying to the information the client received a decryption processing using
the searched M_f.n combined information as a variable to create decrypted information.